

REMARKS:

Claims 40-71 are in the case and presented for consideration.

First, the examiner has rejected independent claims 1, 11, 20, and 33, and their dependent claims pursuant to 35 U.S.C. 112, second paragraph, because they recite a low melting point paraffin wax concentration which is different from the concentration disclosed in the original specification. The table on page 14 of the specification has been amended to conform to the low melting point paraffin wax concentration range used in Examples 1 and 2 of the specification on page 15. The claims have also been rewritten to conform to the specification, and both the specification and claims are now consistent teaching a low melting point paraffin wax concentration ranging from 1-32.5% weight.

Claims 1-39 were rejected under 35 U.S.C. §102(a) as being anticipated by U.S. Patent 6,214,918 to Johnson combined with admitted prior art U.S. Patents 2,825,635 to Dooley et al., 3,046,101 to Tench, 3,216,921 to Fox, and 4,855,098 to Taylor. It appears that the examiner had instead intended to reject the claims as obvious pursuant to 35 U.S.C. §103(a), since none of the cited references contain each and every element recited by applicant. Regardless, applicants submit that the invention is both novel and non-obvious from the prior art for the reasons set forth below.

Initially, applicants observe that none of the admitted prior art references disclose the combination of vegetable oil with wax. The Dooley '635 patent only teaches a blend of paraffin waxes with varying melting points. The Tench '101 patent teaches a paraffin

wax blend alone, or combines stearic acid with a paraffin wax blend. The Fox '921 patent only teaches a wax blend. The Taylor '098 patent teaches a paraffin wax blend with one paraffin wax substituent having a maximum 2% oil and another paraffin wax substituent having a maximum 0.5% oil. It is noted that the maximum oil percentage is representative of the inherent oil content of paraffin wax, and is not any type of oil additive. None of these patents teach or suggest a combination of a paraffin wax blend with a hydrogenated vegetable oil combination such as soy and cottonseed oil, where the amount of vegetable oil is greater than the amount of wax, and the vegetable oil contains no more than 0.3% wt. free fatty acids.

Furthermore, the Johnson '918 patent teaches a candle composition containing a **single** paraffin wax and an amount of vegetable oil greater than the amount of paraffin wax. However, Johnson '918 fails to teach or suggest a combination of vegetable oil with a blend of paraffin waxes having varying melting points. Each independent claim of applicant's invention recites a combination of a vegetable oil and a mixture of a low melting point paraffin wax and high melting point paraffin wax.

Because there is no suggestion that the admitted prior art be combined with the Johnson '918 patent, applicant's invention is not made obvious. "The mere fact that it is possible to find two isolated disclosures that might be combined in such a way to produce a new compound does not necessarily render such production obvious unless the art also contains something to suggest the

desirability of the proposed combination." In re Bergel and Stock, 292 F.2d 955 (C.C.P.A. 1961).

There is no suggestion in the prior art that demonstrates the desirability of combining a greater amount of vegetable oil with a blend of lower and higher melting point paraffin wax, such that the higher melting point is consumed preferentially in the melt pool, leaving more of the lower melting point paraffin to co-crystallize with the vegetable oil, and causing the composition to give off more fragrance at a lower temperature.

As shown in the accompanying drawings Fig. A and B, the melting point of a candle comprising vegetable oil and paraffin wax blend is significantly higher when it is first burned as compared to several hours later. Fig. A shows that the melting point, when it is first burned is 120.06° F. After the candle has been burned for several hours in a container and is allowed to cool, a white ring of wax is observable around the top perimeter of the container. When this white ring is harvested, its melting point is shown in Fig. B as significantly lower at 110.44° F, proving that when a high melting point wax is combined with a low melting point wax and a vegetable oil, the higher melting point wax burns preferentially causing the low melting point wax to co-crystallize with the vegetable oil and be more abundant in later stages of burning.

The prior art also does not suggest the desirability of using a vegetable oil with only negligible amounts of free fatty acids, which optimizes co-crystallization between the lower melting point

wax and the vegetable oil. Triglycerides that make up vegetable oils are structurally similar and align more readily with each other than with structurally different free fatty acids, which may come in a variety of forms and shapes.

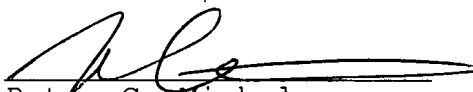
Claims 11, 20, and 33 have been rewritten as independent claims 40, 47, and 58 respectively, to further distinguish them from the prior art. The claims now recite a candle composition with vegetable oil and a mixture of low and high melting point waxes.

Accordingly, the application and claims are believed to be in condition for allowance, and favorable action is respectfully requested. No new matter has been added.

If any issues remain which may be resolved by telephonic communication, the Examiner is respectfully invited to contact the undersigned at the number below, if such will advance the application to allowance.

Favorable action is respectfully requested.

Respectfully submitted,


Peter C. Michalos
Reg. No. 28,643
Attorney for Applicants
(845) 359-7700

Dated: September 16, 2002

NOTARO & MICHALOS P.C.
100 Dutch Hill Road
Suite 110
Orangeburg, New York 10962-2100

PCM:YG:al
Enc.

to structural flaws. Also, as the paraffin wax flows toward the wick, it is artificially entangled by the polyethylene, thereby causing the candle to burn longer. Polyethylene may also provide a transparent effect to the candle composition 10. Finally, the addition of polyethylene increases the oil-holding capacity and oil and dye anchoring of the paraffin wax that is particularly important with respect to the fragrance oils that are normally added to candles.

[0038] Acceptable ranges for the components of the candle composition are shown in the following table:

Ingredient	% Weight of total
HVO	10-83
High Melt Paraffin	1-10
Low Melt Paraffin	1- 53 <u>32.5</u>
Polymer	0-1
Fragrance	0-6
Dye	0-1

[0039] As seen in the table above, additives may also be incorporated into the composition. Additives may include fragrance, dyes, antioxidants, and UV inhibitors for protecting the candle composition 10 from UV damage due to sunlight such as fading. One or all of these additives may be included in the candle composition 10.